

TECHNICAL BULLETIN

MAY 1976

GYPSUM ROCK FOR PORTLAND CEMENT PLANTS

Kaiser Gypsum Rock is produced from selected open-face gypsum quarries, and crushed to proper specifications at our plants at Long Beach, Antioch, and Seattle. Gypsum rock is used to control setting time of Portland Cement. The SO_3 value of the gypsum is the critical factor in the set control mechanism.

Product description and typical average properties are as follows:

Common Name	Gypsum	
Chemical Name	Calcium Sulfate, Dihydrate	
Chemical Formula	$\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$	
Molecular Weight	172.18	
Gypsum Purity	95%	
Sulfur Trioxide (SO_3)	44.2%	
Decomposition Temperature	262°F (128°C) loses 1-1/2 H_2O 325°F (163°C) loses 2 H_2O	
Specific Gravity	2.25	
Mohs Hardness	2.0	
Color	White to light gray	
pH (saturated solution)	7.1	
Solubility (grams per 100 ml. water)	At 68° F (20° C)	0.20
	At 212°F (100° C)	0.16

<u>Fineness</u>	<u>Crusher Run Gypsum Rock</u>	<u>Screened Gypsum Rock</u>
Plus 1 inch	0 - 2%	0 - 2%
Minus 1 inch Plus 1/4 inch	(98% - 100%	95% - 100%
Minus 1/4 inch	(0 - 3%

Kaiser Gypsum Rock conforms to the Standard Specification for Gypsum, ASTM Designation C 22. The chemical analysis of the gypsum shall be determined by Standards Methods for Chemical Analysis of Gypsum and Gypsum Products, ASTM Designation C 471.